

## REMARKS

The Office Action dated January 6, 1997 has been carefully reviewed. In response thereto, claims 2 and 4-12 have been amended and claim 13 has been added. Claims 2 and 4-13 remain active in the application.

In paragraph 14, claims 2 and 4-12 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Applicants respectfully submit that this rejection is overcome by the amendments which clarify the claims in response to the Examiner's specific objections. The Office Action states that the "examiner is not certain that the meets [sic] and bounds of these claims can be determined because of the language in the disclosure and claims." It further states that "[a]pplicants are being requested to reference the claim limitations in this application to the disclosure so that the meets [sic] and bounds of these claims can be properly considered." Applicants overcome this rejection and submit they are under no duty to prospectively reference claim limitations to the specification where the Examiner has not specifically identified what is objected to as indefinite. MPEP § 2111 states that "[d]uring patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.'" Also, it is only "when the specification provides definitions for terms appearing in the claims that the specification can be used in interpreting claim language." MPEP § 2111.01. Applicants respectfully request that this blanket rejection for indefiniteness be withdrawn.

However, in order to advance the prosecution of the present application, Applicants shall provide a summary of the pertinent disclosure including citation to examples supporting the claimed subject matter. The present application claims priority based on the 1987 disclosure, filed on September 11, 1987, as Ser. No. 07/096,096, and issued October 23, 1990, as U.S. Pat. No. 4,965, 825.

In their 1987 continuation-in-part specification, applicants disclose "an integrated system of programming communication" which encompasses many inventions and deliberately includes many embodiments. Their teaching technique is to introduce the principles of their integrated system in a series of *related* examples. Each example builds upon structure and principles introduced earlier. Examining basic principles in detail in early examples, enables the specification with concreteness to expand and extend the scope of the teaching in later examples.

Starting with "**One Combined Medium**" on page 19 which focuses on the creation and delivery of a receiver specific graph in a broadcast or cablecast television program, "Wall Street Week," the specification introduces concepts of personalization of mass media and broadcast control of receiver station computing equipment. At page 28 *et seq.* it describes apparatus that include signal processors and signal decoders and introduces the concept of a signal processor *system*. At page 40 *et seq.* it teaches the composition of signal information and the organization of message streams.

Then in a series of four **examples, #1 through #4** which begin on pages 108, 143, 162, and 197 respectively, the specification demonstrates how receiver stations communicate signal processor apparatus and methods ("*SPAM*") processor code and data of the integrated system of programming communication to *some* apparatus they actuate, how decryption occurs, how metering and monitoring take place, and how actuated apparatus perform. Each example builds on concepts introduced earlier in the specification to provide a detailed teaching of its own subject matter, and a particularly important teaching occurs from pages 156 through 162 where the specification teaches the structure and operating capabilities of a *controller of a decoder*.

Building on all that precedes it, **example #5**, which begins on page 248, then relates how the integrated system processes a multichannel communications system,

which conveys different types of signals, in order to monitor programming availability and enable receiver station apparatus to receive desired programming.

From pages 278 through 312, in **example #6** and especially **example #7**, which includes both digital and analog television signals and relates to the "Wall Street Week" program (and which has further disclosure at pages 427 through 447), the specification teaches regulating reception and use of programming of the integrated system of programming communication.

At page 312 *et seq.* it relates further monitoring concepts.

From page 324 through page 390 the specification teaches a series of transmitter station and transmitter network concepts. This portion of the specification also relies on all previous disclosure in that special attention is given to intermediate transmission stations which, *as receiver stations*, respond to programming transmissions of the integrated system as well as storing, organizing, generating, and transmitting programming. At page 340 *et seq.* **example #8** teaches distribution to, storage and organization at, and retransmission from intermediate transmission stations ("*ITS*") of SPAM programming -- most specifically television spot commercials. At page 354 *et seq.* **example #9** teaches automating intermediate transmission station combined medium operations by describing how an intermediate transmission station responds to an intermediate generation set and other elements of the integrated system to generate processor code and data and transmit the code and data with SPAM programming -- spot commercial unit Q of example #8 -- all of which are subsequently shown in the specification to operate at receiver stations to deliver receiver specific programming at video monitors, speakers, printers, and transmitters (telephones which communicate to remote data collection stations). At page 374 *et seq.* **example #10** extends the transmitter and network automating concepts of examples #8 and #9 by disclosing *a plurality* of intermediate transmission stations generating processor code and data, in the fashion of

example #9, and inserting different code and data into a *network originated* transmission of SPAM programming -- again the unit Q television spot commercial.

From page 390 through 516, the specification discloses further ultimate receiver station ("*URS*") automation concepts, including regulating the URS environment (page 396 *et seq.*), controlling multiple receivers and output devices to present coordinated output (page 406 *et seq.*), receiving selected programming of the integrated system (page 419 *et seq.*), certain *integrated system computer system concepts* (page 427 *et seq.*), whose **example #7** (page 427 *et seq.*) description relies on the receiving selected programming concepts of pages 419-427. At page 447 *et seq.* the specification discloses certain data maintenance, timing control, efficiency, and other concepts involved in controlling combined media operations. At page 457 *et seq.* the specification discloses certain timing, imaging, communication, and transmission processing concepts that relate to efficient delivery of integrated system programming. At page 463 *et seq.* the specification relates to user specific audio, print, and other combined media besides receiver specific video.

With all this preparation, the specification teaches, from page 469 through page 516, the combined media presentation of **examples #9 and #10** at a plurality of ultimate receiver stations (which are responding to signals sent by different intermediate transmission stations).

At page 516 *et seq.* the specification discloses enhancing and extending functionality of the integrated system by reprogramming receiver apparatus and enabling receiver stations to process transmissions having new forms of composition.

Finally, at page 533 *et seq.* the specification discloses "**Summary Example**" (#11) which teaches a very large scale integrated data processing and communications problem and its solution(s), using *all of* the disclosed integrated system with iterative broadcasting, response, and refinement.

Because of the integrated nature of the disclosure, no part of the specification is intended to be considered *in isolation*. However, in the present application, the examiner's attention is directed to the specification at pages 19-28, 249-267, 288-312, 324-390, and 419-447.

Applicants provide these specific embodiments in support of the pending claims by way of example only. The claims must be read as broadly as is reasonable in light of the specification, and Applicants in no way intend that the submission of excerpts and examples be construed to unnecessarily restrict the scope of the claimed subject matter.

Claims 4, 11, and 12 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. Particularly, numerous terms in the claims lack proper antecedent basis. Applicants have amended the claims to more clearly identify the claimed subject matter and request that this rejection be withdrawn.

Claims 2 and 4-12 are rejected under 35 U.S.C. § 102(e) as being anticipated by Cheung (US 4,430,669). For a prior art reference to anticipate in terms of §102, every element of the claimed invention must be identically shown in a single reference. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Absence from a cited reference of any element of a claim negates anticipation of that claim by the reference. Kloster Speedsteel AB v Crucible, Inc., 230 U.S.P.Q. 81 (Fed. Cir. 1986), on rehearing, 231 U.S.P.Q. 160 (Fed. Cir. 1986).

Cheung discloses a method for providing special programming in a subscription broadcast system whereby programming information is broadcast in advance of a special program to enable authorized customers of subscription television services to receive, at a later time, the special program. During non-program hours, a subscription broadcast television station broadcasts in place of programming, the time of a future

special broadcast, as well as other information to enable the decoding circuitry in receivers of those subscribers which are authorized to receive the special broadcast at the time of the special program broadcast. The receiver at the subscriber's residence will tune during non-broadcast hours to all subscription television broadcast frequencies, and compare subscriber identification information being broadcast with a subscriber identification number previously supplied by the broadcaster. The subscriber identification number is stored in machine readable form in the receiver. When a received identification number coincides with a machine readable identification number, program information identifying the future special program is stored in a memory for use by descrambling apparatus to enable the receiver decoding apparatus at the time of the broadcast of the special program. In addition, authorization to receive normal subscription broadcasts is transmitted during downtime to identify those subscribers who are not authorized to receive the normal subscription broadcast.

In Cheung, each subscription broadcast station signal within the reception area of the subscriber is individually interrogated by apparatus in accordance with this invention during non-programming hours, and each time an identification number is received indicating that a special program has been requested by the subscriber, the time of broadcast of the special program as well as other identifying information is stored in memory and recalled at the time of the special broadcast for tuning the frequency associated with the special broadcast. Decoding of the special and normal scrambled broadcasts for both regular subscription and special broadcasts are provided to restore the video and in some cases audio to a television signal which may be displayed by a television receiver.

Independent claim 2 discloses a method of controlling a transmitter station. A schedule that designates mass medium programming is inputted to a computer. The schedule also includes a time to transmit the mass medium programming to a remote

receiver station and/or a channel on which to transmit the mass medium programming to the remote receiver station. Based on the schedule, information to be associated with the mass medium programming is selected. This information includes video, audio, and/or software. A control signal is detected at the transmitter station and passed to the computer. The control signal designates the mass medium programming and/or the information to be associated with the mass medium programming. A selective transmission device communicates the information either to a selected signal generator or to a signal generator at a selected time. A signal that contains the mass medium programming and the information to be associated with the mass medium programming is generated and transmitted to a remote receiver station.

Cheung does not anticipate independent claim 2 because Cheung does not teach or suggest the selection of information that may consist of video, audio, and/or software to be associated with mass medium programming. Cheung also does not disclose the use of a control signal that is received and detected at a transmitter station where it operates to designate mass medium programming and information to be associated with the mass medium programming. Furthermore, Cheung does not disclose receiving and detecting a control signal that operates at a transmitter station to effect the generation of a signal at the transmitter station which contains the mass medium programming and the information to be associated with the mass medium programming. The transmitter apparatus in Cheung merely inserts program identification data into the vertical interval of the television program before transmitting. The program identification data transmitted with the television program consists of a program identification number and two bits which indicate whether the program is a basic or special (i.e., pay-per-view) program. Therefore, claim 2 is not anticipated by Cheung, and claims 4-10 are not anticipated by Cheung at least by virtue of their dependence on patentable independent claim 2.

Independent claim 11 discloses a method of controlling a transmitter station. First, an information transmission and schedule are received. The schedule designates mass medium programming and includes a time to transmit the mass medium programming and/or a channel on which to transmit the mass medium programming. The schedule effects a remote transmitter station to select information that is to be associated with the mass medium programming, generate a first signal that contains the mass medium programming and the information, and transmit the first signal. The schedule can also effect a remote receiver station to select information that is to be associated with the mass medium programming, generate a second signal that contains the mass medium programming and the information, and output the second signal. A transmitter control signal is also received which operates at the transmitter station to communicate the schedule and/or first signal to a transmitter. The information transmission, schedule, and transmitter control signal are then transmitted.

Cheung does not anticipate independent claim 11 because Cheung does not teach or suggest receiving a schedule that effects a remote transmitter station to select information to be associated with mass medium programming, generate a first signal that contains the mass medium programming and the information to be associated, and transmit the first signal. Also unlike Cheung, Applicants' invention teaches a schedule that effects a remote receiver station to select information to be associated with mass medium programming, generate a second signal that contains the mass medium programming and the information to be associated, and output the second signal. The Examiner incorrectly analogizes this schedule taught in Applicants' invention to the feature in Cheung of a subscription television station broadcasting, during non-programming hours, the time of a future broadcast. This feature in Cheung, however, is not similar to Applicants' schedule that is transmitted to remote transmitter and receiver stations and operates at those stations as described above. Certainly, Cheung



does not disclose a schedule that effects the transmission of a first signal from a remote transmitter station, or that effects the output of a second signal at a remote receiver station.

Independent claim 12 discloses a transmitter comprised of a computer means, control signal detecting means, selective transmission means, signal generating means, and transmitter means. The computer means receives a schedule that designates mass medium programming and includes a time to transmit the mass medium programming to a remote receiver station and/or a channel on which to transmit the mass medium programming. The schedule also selects information to be associated with the mass medium programming. The information may include video, audio, and/or software. The control signal detecting means detects the presence of a control signal at the transmitter station and passes the control signal to the computer means. The control signal designates the mass medium programming and the information to be associated with the mass medium programming. The selective transmission means communicates the information to be associated with the mass medium programming to either a selected signal generator or a signal generator at a selected time. The signal generating means generates a signal that contains the mass medium programming and the information to be associated with the mass medium programming. Lastly, the transmitter means, which is coupled to the signal generating means, transmits the signal to a remote receiver station.

Cheung does not anticipate independent claim 12 because Cheung does not teach or suggest a transmitter station that receives a schedule that includes a time to transmit mass medium programming to a remote receiver station and a channel on which to transmit the mass medium programming. The transmitter apparatus in Cheung simply transmits program identification data during non-programming hours. Cheung also

does not disclose the selection of information to be associated with mass medium programming based on the schedule, with the information including video, audio, and/or software. Furthermore, the transmitter apparatus in Cheung does not include a control signal detecting means for detecting control signals and passing them to a computer, or a selective transmission means for communicating information to be associated with mass medium programming to a signal generator.

Based on the above reasoning, Cheung does not anticipate amended claims 2 and 4-12. Accordingly, applicants respectfully request withdrawal of the rejection of these claims under 35 U.S.C. § 102(e).

Claims 2 and 4-12 are rejected under the judicially created doctrine of non-obviousness, non-statutory double patenting over the patented claims in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414. As to the double patenting rejections of paragraphs 5-13, applicants' views are fully discussed in applicants' reply brief to the rejections in application number 08/113,329, and that reply brief is incorporated by reference herein. Moreover, the claims of the present application are patentably distinct from the representative claims of U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414.

As an initial matter, the examiner's rejection of the present application under the Schneller double patenting theory based on Harvey U.S. Patents 4,694,490 and 4,704,725 is improper because the present application does not claim the benefit of those applications under 35 U.S.C. § 120. Thus, there could never have been a basis for claiming the present subject matter in those applications. Therefore, the rejection based on Harvey U.S. Patents 4,694,490 and 4,704,725 should be withdrawn.

Moreover, the PTO fails to specifically identify all claims from cited Harvey patents that cover specific claims in the present application. Rather, the Office Action references “representative claims” from patents and the present application. The Office Action does not cite specific elements from claims in a patent covering specific elements in claims in the application. In fact, the Office Action acknowledges that the patent claims and application claims are directed to different elements, but states that this “does not prohibit this rejection if there is common or interrelated subject matter recited.” The Office Action then references Schneller in support of this erroneous statement, not supported by Schneller.

The claims in the present application are distinct from the claims in the Harvey patents. As previously mentioned, the Office Action states that the independent and distinct standard was the main factor in the Schneller court’s determination that the double patenting rejection should be affirmed. The Office Action has misinterpreted this phrase. This phrase means independent ‘or’ distinct. MPEP (6th ed.) § 802.01. The MPEP defines independent as meaning “that there is no disclosed relationship between the two or more subjects disclosed” and that they are not connected. The MPEP defines the term distinct as meaning that “two or more subjects disclosed are related . . . but are capable of separate manufacture, use, or sale as claimed . . . .” Two or more subjects cannot then be unrelated, independent, and also related, and thus distinct. Analyzing the PTO’s cited representative claims referenced in the Office Action, the claims of the present application are clearly distinct from the claims in the patents and therefore the claims in the present application are patentable. Although not required, applicants will analyze the claims of the present application with respect to the designated representative claims of Harvey U.S. Patents 4,694,490 and 4,704,725.

Claim 11 of the present application is distinct from the first representative claim, claim 7 of U.S. Patent 4,694,490.

Patent 4,694,490 claim 7 recites a method of communicating television program material, said material including a video signal containing a television program and an instruct-to-overlay signal, to multiple receiver stations. The video signal is received and the instruct-to-overlay signal detected and processed by a computer. The computer generates and transmits its overlay video signals, in response to the instruct-to-overlay signal, to a television receiver which presents a combined display of the television program and overlay video signals, said display being specific to a particular user.

Application claim 11 discloses a method of controlling a transmitter station. First, an information transmission and schedule are received. The schedule effects a remote transmitter station to select information that is to be associated with the mass medium programming, generate a first signal that contains the mass medium programming and the information, and transmit the first signal. The schedule can also effect a remote receiver station to select information that is to be associated with the mass medium programming, generate a second signal that contains the mass medium programming and the information, and output the second signal. The information transmission, schedule, and a transmitter control signal are then transmitted.

Patent claim 7 does not cover present application claim 11. Patent claim 7 relates to instruct-to-overlay signals that are detected and processed by a computer then transmitted to a television receiver which presents a combined display of the computer generated overlay and a television program. In addition, application claim 11 does not require the use of specific user applications, overlay modification control signals, or instruct-to-overlay signals. Furthermore, patent claim 7 requires detecting the presence of the instruct-to-overlay signal "at a time when the corresponding overlay is not being

displayed." There is no comparable limitation in application claim 11. The two claims are capable of separate manufacture, sale, and use as claimed and, as such, the two inventions are distinct.

U.S. patent 4,694,490, claim 7	Present application, claim 11
<p>In a method of communicating television program material to a multiplicity of receiver stations each of which includes a television receiver and computer, the computers being adapted to generate and transmit overlay video signals, to their associated television receivers, said overlay signals causing the display of user specific information related to said program material, and with at least some of said computers being programmed to process overlay modification control signals so as to modify the overlay video signals transmitted to their associated receivers, each of said computers being programmed to accommodate a specific user application, and wherein a video signal containing a television program signal and an instruct-to-overlay signal are transmitted to said receiver stations, the steps of:</p> <p>receiving said video signal at a plurality of receiver stations and displaying said program material on the video receivers of selected ones of said plurality of receiver stations</p> <p>detecting the presence of said instruct-to-overlay signal at said selected receiver stations at a time when the corresponding overlay is not being displayed, and coupling said instruct-to-overlay signal to the computers at said selected receiver stations, and</p> <p>causing the computers at said selected receiver stations to generate and</p>	<p>A method of controlling a transmitter station, comprising the steps of:</p> <p>(a) receiving an information transmission to be transmitted;</p> <p>(b) receiving a schedule that designates mass medium programming and includes at least one of a time to transmit said mass medium programming and a channel on which to transmit said mass medium programming, said schedule performing at least one of:</p> <p>(i) effecting a remote transmitter station to: (1) select information to be associated with said mass medium programming based on said schedule, said selected information including at least one of video, audio, and software; (2) generate a first signal containing said mass medium programming and said information to be associated with said mass medium programming; and (3) transmit said first signal; and</p> <p>(ii) effecting a remote receiver station to: (1) select information to be associated with said mass medium programming based on said schedule, said selected information including at least one of video, audio, and software; (2) generate a second signal containing said mass medium programming and said information to be associated with said mass medium programming; and (3) output said second signal;</p> <p>(c) receiving a transmitter</p>

transmit their overlay video signals to their associated television receivers in response to said instruct-to-overlay signal, thereby to present a combined display at the selected receiver stations consisting of the television program and the related computer generated overlay, the overlays displayed at a multiplicity of said receiver stations being different, with each display specific to a specific user.

control signal which operates at said transmitter station to communicate at least one of said schedule and said first signal to a transmitter; and

(d) transmitting said information transmission, said schedule and said transmitter control signal.

Claim 11 of the present application is distinct from the second representative claim, claim 3 of U.S. Patent 4,704,725.

Patent 4,704,725 claim 3 recites a method of communicating output signals comprising data and user specific signals at a multiplicity of receiver stations from computers to output devices. At least some of the computers can modify the user specific signals by processing modification control signals. The computers communicate the data and user specific signals in response to a received and detected instruct-to-transmit signal.

Application claim 11 discloses a method of controlling a transmitter station. First, an information transmission and schedule are received. The schedule effects a remote transmitter station to select information that is to be associated with the mass medium programming, generate a first signal that contains the mass medium programming and the information, and transmit the first signal. The schedule can also effect a remote receiver station to select information that is to be associated with the mass medium programming, generate a second signal that contains the mass medium programming and the information, and output the second signal. The information transmission, schedule, and a transmitter control signal are then transmitted.

Patent claim 3 does not cover present application claim 11. Patent claim 3 requires the use of instruct-to-transmit signals and special user applications at the receiver station's computer to generate user-specific signals. The computer also accepts modification control signals in its processing before delivering the user-specific signals to the output devices. Application claim 11 does not rely on special user applications, modification control signals, or instruct-to-transmit signals. Furthermore, patent claim 3 requires transmitting an instruct-to-transmit signal to the computers at a time when the corresponding user specific information is not being transmitted to an output device. There is no comparable limitation in application claim 11. The two claims are capable of separate manufacture, sale, and use as claimed and, as such, the two inventions are distinct.

U.S. patent 4,704,725, claim 3	Present application, claim 11
<p>A method of communicating data to a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific signals to one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify the user specific signals transmitted to their associated output devices, each of said computers being programmed to accommodate a special user application, comprising the steps of:</p> <p>transmitting an instruct-to-transmit signal to said computers at a time when the corresponding user specific information is not being transmitted to an output device;</p> <p>detecting the presence of said instruct-to-transmit signal at selected receiver stations and coupling said instruct-to-transmit signal to the</p>	<p>A method of controlling a transmitter station, comprising the steps of:</p> <p>(a) receiving an information transmission to be transmitted;</p> <p>(b) receiving a schedule that designates mass medium programming and includes at least one of a time to transmit said mass medium programming and a channel on which to transmit said mass medium programming, said schedule performing at least one of:</p> <p>(i) effecting a remote transmitter station to: (1) select information to be associated with said mass medium programming based on said schedule, said selected information including at least one of video, audio, and software; (2) generate a first signal containing said mass medium programming and said information to be associated with said mass medium</p>

computers associated with said selected stations, and

causing said last named computers to generate and transmit their user specific signals to their associated output devices in response to said instruct-to-transmit signal, thereby to transmit to the selected output devices an output signal comprising said data and said related user specific signals, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.

programming; and (3) transmit said first signal; and

(ii) effecting a remote receiver station to: (1) select information to be associated with said mass medium programming based on said schedule, said selected information including at least one of video, audio, and software; (2) generate a second signal containing said mass medium programming and said information to be associated with said mass medium programming; and (3) output said second signal;

(c) receiving a transmitter control signal which operates at said transmitter station to communicate at least one of said schedule and said first signal to a transmitter; and

(d) transmitting said information transmission, said schedule and said transmitter control signal.

Claim 11 of the present application is distinct from the third representative claim, claim 24 of U.S. Patent 4,965,825.

Patent 4,965,825 claim 24 recites a method of generating user specific output information at a multiplicity of receiver stations. Each receiver station is programmed with a special user application and has a computer adapted to generate user specific output information. Each receiver station has an output device to which its computer transmits a user specific signal. At a time when the user specific output information does not exist, an instruct-to-generate signal is transmitted to the receiver stations. In response to the instruct-to-generate signal, the computers generate and transmit to the output devices the user specific output information in user specific signals which are different, "with each output signal specific to a specific user".



Application claim 11 discloses a method of controlling a transmitter station. First, an information transmission and schedule are received. The schedule effects a remote transmitter station to select information that is to be associated with the mass medium programming, generate a first signal that contains the mass medium programming and the information, and transmit the first signal. The schedule can also effect a remote receiver station to select information that is to be associated with the mass medium programming, generate a second signal that contains the mass medium programming and the information, and output the second signal. The information transmission, schedule, and a transmitter control signal are then transmitted.

Patent claim 24 does not cover present application claim 11. Claim 24 relates to a receiver station that is programmed with a special user application and has a computer adapted to generate user specific output information when it receives an instruct-to-generate signal. Application claim 11 does not involve instruct-to-generate signals, modification control signals, or special user applications. Furthermore, patent claim 24 requires transmitting an instruct-to-generate signal to the computer at a time when corresponding user specific output information content does not exist. There is no comparable limitation in application claim 11. The two claims are capable of separate manufacture, sale, and use as claimed and, as such, these two inventions are distinct.

U.S. patent 4,965,825, claim 24	Present application, claim 11
In a method of generating computer output at a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific output information content and user specific signals to one or more associated output devices, with at least one or more associated output devices, with at least some of said computers being	A method of controlling a transmitter station, comprising the steps of: (a) receiving an information transmission to be transmitted; (b) receiving a schedule that designates mass medium programming and includes at least one of a time to transmit said mass medium programming

programmed to process modification control signals so as to modify said computers' method of processing data and generating output information content, each of said computers, being programmed to accommodate a special user application, the steps of: transmitting an instruct-to-generate signal to said computers at a time when corresponding user specific output information content does not exist, and

causing said last named computers to generate their user specific output information content in response to said instruct-to-generate signal, thereby to transmit to each of their associated output devices an output information content and the user specific signal of its associated computer, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.

and a channel on which to transmit said mass medium programming, said schedule performing at least one of:

(i) effecting a remote transmitter station to: (1) select information to be associated with said mass medium programming based on said schedule, said selected information including at least one of video, audio, and software; (2) generate a first signal containing said mass medium programming and said information to be associated with said mass medium programming; and (3) transmit said first signal; and

(ii) effecting a remote receiver station to: (1) select information to be associated with said mass medium programming based on said schedule, said selected information including at least one of video, audio, and software; (2) generate a second signal containing said mass medium programming and said information to be associated with said mass medium programming; and (3) output said second signal;

(c) receiving a transmitter control signal which operates at said transmitter station to communicate at least one of said schedule and said first signal to a transmitter; and

(d) transmitting said information transmission, said schedule and said transmitter control signal.

Claim 11 of the present application is distinct from the fourth representative claim, claim 15 of U.S. Patent 5,109,414

Patent 5,109,414 claim 15 recites a signal processing system which receives data from a data source and outputs the data to a matrix switch and a detector, control signals are detected within the received data and stored for further processing, and a

processor controls the directing functions of: (1) the matrix switch which receives the data as input and can direct selected portions of the data to a data transmission means; and (2) the device which stores and transfers the control signals to the processor. The processor performs these controlling functions on the basis of instructions within the control signals.

Application claim 11 discloses a method of controlling a transmitter station. First, an information transmission and schedule are received. The schedule effects a remote transmitter station to select information that is to be associated with the mass medium programming, generate a first signal that contains the mass medium programming and the information, and transmit the first signal. The schedule can also effect a remote receiver station to select information that is to be associated with the mass medium programming, generate a second signal that contains the mass medium programming and the information, and output the second signal. The information transmission, schedule, and a transmitter control signal are then transmitted.

Patent claim 15 does not cover present application claim 11. Patent claim 15 relates to a data system that receives and processes data from a data source and includes a processor that controls the functions of a matrix switch and a data storage/transfer device. Application claim 11 does not require a matrix switch means or a storage/transfer means. Furthermore, application claim 11 does not disclose control signals and instructions within a data signal that control the matrix switch and data storage/transfer device. In addition, patent claim 15 does not receiving a schedule that designates mass medium programming and includes a time or a channel for transmitting the mass medium programming. The two claims are capable of separate manufacture, sale, and use as claimed and, as such, these two inventions are distinct.

**U.S. patent 5,109,414, claim 15**

In a signal processing system,  
a receiver/distribution means for receiving data from a data source and for outputting said data to a matrix switch means and a control signal detector means,  
a matrix switch means for receiving said data from said receiver/distributor means and for directing selected portions of said received data to a data transmission means,  
a control signal detector means for detecting control signals respecting said data and transferring said control signals to a storage/transfer means, said control signal means being configured to detect said control signals at a predetermined location within said data,  
a storage/transfer means for receiving and storing said control signals and for transferring at least a portion of said control signals to a processor means for further processing, and  
a processor means for controlling the directing functions of said matrix switch means and the transfer functions of said storage/transfer means based on instructions contained in said control signals.

**Present application, claim 11**

A method of controlling a transmitter station, comprising the steps of:

- (a) receiving an information transmission to be transmitted;
- (b) receiving a schedule that designates mass medium programming and includes at least one of a time to transmit said mass medium programming and a channel on which to transmit said mass medium programming, said schedule performing at least one of:
  - (i) effecting a remote transmitter station to: (1) select information to be associated with said mass medium programming based on said schedule, said selected information including at least one of video, audio, and software; (2) generate a first signal containing said mass medium programming and said information to be associated with said mass medium programming; and (3) transmit said first signal; and
  - (ii) effecting a remote receiver station to: (1) select information to be associated with said mass medium programming based on said schedule, said selected information including at least one of video, audio, and software; (2) generate a second signal containing said mass medium programming and said information to be associated with said mass medium programming; and (3) output said second signal;
- (c) receiving a transmitter control signal which operates at said transmitter station to communicate at least one of said schedule and said first signal to a transmitter; and
- (d) transmitting said information transmission, said schedule and said

| transmitter control signal.

Claims 2 and 4-12 are rejected under the judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and other listed U.S. applications. The rejection should be a provisional rejection until one or more of the copending applications issues, at which time the rejection can be made non-provisional.

Secondly, although the rejection is stated as a judicially created obviousness double patenting rejection, the examiner's arguments are those of a Schneller non-obviousness, non-statutory double patenting rejection. Applicants' reply brief addresses the merits of the Schneller-type rejection.

The examiner's comments on the claims is acknowledged and appreciated. With respect to the assertion, in paragraph 2, that no attempt to will be made to determine the effective filing date of this application, applicant claims priority under 35 U.S.C. § 120 of the following applications:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Patent No.</u>
08/113,329	August 30, 1993	Pending
08/056,501	May 3, 1993	5,335,277
07/849,226	March 10, 1992	5,233,654
07/588,126	September 25, 1990	5,109,414
07/096,096	September 11, 1987	4,965,825

As to the paragraph numbered 3, applicants acknowledge their duty to maintain a line of patentable demarcation between related applications. Assuming, arguendo, that substantially duplicate claims exist, the applicants intend to make a good faith effort to alert the PTO of any instances in which the PTO treats such claims inconsistently.

As to the paragraph numbered 4, applicants acknowledge and appreciate the examiner's concern over the use of alternative claim language. Applicants assert that they believe that the disclosure supports every possible embodiment or permutation that can be created using said language. During the prosecution of this application, applicants intend to ensure that the disclosure supports each possible embodiment claimed using alternative claims.

In paragraph 10, the Office Action states that "determination of a possible non-statutory double patenting rejection obvious-type in each of the related 327 applications over each other will be deferred until a later time." Applicants submit that the examiner and the PTO cannot defer further rejections to a later time. Every ground of rejection should be made in examiner's first Office Action. 37 CFR § 1.104(a) states that "[o]n taking up an application for examination . . . the examiner shall make a thorough study thereof and shall make a thorough investigation of the available prior art relating to the subject matter of the claimed invention. The examination shall be complete with respect to both compliance of the application . . . with the applicable statutes and rules and to the patentability of the invention as claimed, as well as with respect to matters of form, unless otherwise indicated." The MPEP states "[t]he examiner's action will be complete as to all matters, except that in appropriate circumstances, such as misjoinder of invention, fundamental defects in the application, and the like, the action of the examiner may be limited to such matters before action is made." MPEP § 707.07, citing 37 CFR § 1.105. Finally, "[p]iecemeal examination should be avoided as much as possible. The examiner ordinarily should reject each claim on all valid grounds available . . . ." "Where a major technical rejection is proper, it should be stated with full development of reasons rather than by mere conclusion coupled with some stereotyped expression." MPEP § 707.07(g). Applicants submit that the examiner has a duty to give each application a complete examination, to make rejections with

specificity, and that not to defer rejections. For these reasons, applicants likewise traverse the rejection based on the "judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and the following [list of all applicants copending applications]." Applicants submit that this rejection, even if appropriately made with specificity, should be a provisional double patenting rejection. Applicants respectfully request that this rejection be withdrawn.

As to the grouping of paragraphs numbered 17, applicants acknowledge and appreciate the interviews provided by the PTO. Applicants also appreciate the detailed description of the interviews provided in the Office Action. The Office Action states that "the Group would like to have a complete grouping of applications in a manner that was submitted earlier for only a portion of the total filings." Applicants note that based on the Office Actions received thus far, the PTO does not appear to be following the groupings applicants submitted previously. The order of examination of applicants' applications do not seem to have any correspondence to the groupings previously submitted. Applicants, therefore, will not supply further groupings. Applicants will, however, gladly supply further groupings if requested by the PTO for the purpose of following these groupings. Mr. Groody has confirmed in a telephone conversation between Mr. Groody and Mr. Scott that no more groupings need be sent.

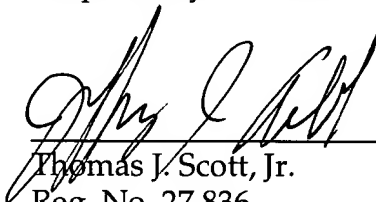
In the interest of maintaining a clear record, applicants respectfully traverse the Office Action's interview summary statement that an offer was made to terminally disclaim the present application with the '81 or '87 patents. Rather, applicants respectfully submit that their offer was to disclaim a block of copending applications against one another, provided their issue date was in close enough proximity so as not to result in unnecessarily great losses in patent term duration.

## CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Furthermore, all pending claims are patentably distinguished over the prior art. Therefore, since there are no further outstanding objections or rejections, the application is submitted as being in a condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for telephone interview to discuss resolution of such informalities.

Respectfully submitted,

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